

We claim:

1. A throttle control mechanism for an engine driven pump, said pump having a fluid intake port and a fluid discharge port, said throttle control mechanism comprising:

- a) an elongate cylinder having a first open end and a second closed end, said first end closed and fluidly sealed by an end block,
- b) a fluid chamber within said end block, said fluid chamber in fluid communication with said cylinder,
- c) a sliding piston within said cylinder, said piston including an axially extending throttle activation rod extending through said end block, said throttle activation rod connected to the throttle of said engine whereby movement of said piston, within said cylinder, causes movement of said throttle activation rod and said engine throttle,
- d) sealing means between said piston and said cylinder,
- e) biasing means between said piston and said closed end of said cylinder whereby said piston is biased against said end block,
- f) a first fluid communicating conduit between said fluid chamber, within said end block, and the discharge port of said pump,
- g) said first fluid communicating conduit having a pressure relief valve therein whereby fluid will flow from said pump discharge port to said fluid chamber within said end block, when the fluid pressure within said pump discharge port exceeds a predetermined pressure,
- h) a second fluid communicating conduit fluidly communicating with said first fluid communicating conduit between said relief valve and said fluid chamber within said end block, said second fluid communicating conduit fluidly communicating between said first fluid communicating conduit and the atmosphere,
- i) a fluid restricting orifice within said second fluid communicating whereby said orifice creates a reduced fluid pressure within said first and

second fluid communicating conduits and said fluid chamber, within said end block, as fluid passes therethrough.

2. The throttle control mechanism as claimed in claim 1 including:

- a) an electrically operated three way exhaust valve positioned, within said second fluid communicating conduit, between said orifice and said first fluid communicating conduit, said exhaust valve having one fluid inlet port and a first and second exhaust port, said first exhaust port normally open and fluidly communicating with said orifice,
- b) said second exhaust port, normally in its closed and having means for opening said port upon demand,
- c) a pressure sensing device for sensing fluid pressure within said second fluid communicating conduit, between said first fluid communicating conduit and said three way exhaust valve whereby upon sensing a predetermined fluid pressure within said second fluid communication conduit said pressure sensing device opens said second exhaust port of said three way exhaust valve.

3.. The throttle control mechanism as claimed in claim 1 including a fluid damping reservoir in fluid communication with said cylinder.

4.. A building sprinkler system having a pump said pump activated by an internal combustion engine:

- a) said engine having a throttle; said throttle attached to a control said control responsive to the output pressure of said pump and adapted to reduce engine speed at a predetermined pressure.

5. The building sprinkler claimed in claim 4 wherein said control has a piston said piston is linked to said throttle wherein said piston moves in response to said output pressure.

6. The sprinkler system claimed in claim 5 wherein said piston is spring based.

7. The sprinkler system claimed in claim 3 wherein said piston rides in a cylinder having an end wall; and a spring located between said end wall and said piston urging said piston away from said end wall.

8. The sprinkler system claimed in claim 7 wherein said cylinder includes an end cap and wherein further comprising at least one shim between said cap and said spring.

9. The sprinkler system claimed in claim 5 wherein said piston includes a first cylindrical portion which rides in a cylindrical chamber wherein water from said pump is directed to said chamber and being effective to move said piston at said predetermined pressure.

10. The sprinkler system claimed in claim 9 wherein said piston has a stop member wider than said cylindrical chamber.

11. A sprinkler system having a series of components said components having a rated pressure capacity;

a) a pump connected to an internal combustion engine and having pressure capability which when combined with a system suction pressure exceeds said rated pressure of said components;

b) throttle control responsive to water pressure from said pump adapted to prevent said water pressure from said pump from exceeding the rated pressure of said components.

12. The sprinkler system claimed in claim 8 wherein said piston further rides in a cylindrical chamber having an end portion wherein said piston extends beyond said end portion and has a stop member having diameter greater than the diameter of said cylindrical chamber.